

Food Security through Small-Scale Irrigation in Mali

Sustainable Agricultural Water Resource Management in the Sahel

Relevance and Challenges of Agriculture

Agriculture plays an important role in Mali's economic development. Three out of four Malians work in agriculture, which accounts for about one-third of gross domestic product and is the largest economic sector. The majority of the population lives in rural areas, and two-thirds are younger than 25 years of age.

In Mali, 2.2 million hectares of land could potentially be used for irrigation, which is of great importance for grain and vegetable production. Currently, only 18% of this land is irrigated, resulting in lower yields than would otherwise be possible. Population growth (3%) and climate change, which is accompanied by recurring droughts and heavy rainfall, pose further challenges to food security in the country.

German Development Cooperation supports Mali's rural population by promoting small-scale irrigation projects across the country. Irrigation increases yields and diversifies production. This in turn has a positive impact on the food security and the financial situation of households and offers new prospects for the rural population.

The specific implementation and objectives of the individual projects are all linked to Malian policies. Within the framework of small-scale irrigation projects, financial cooperation (FC) supports the Malian Ministry of Agriculture in implementing the National Small-Scale Irrigation Program (Programme National d'Irrigation de Proximité, PNIP).

What is financed?

KfW, on behalf of the German government and with additional funds from the European Union and Canadian development cooperation, is currently financing a range of small-scale irrigation projects in several regions of Mali, including Koulikoro, Sikasso, Kayes Mopti, Timbuktu and Gao.

The supported measures in the projects include the construction and rehabilitation of irrigation systems (small dams and irrigation perimeters), the construction of access roads to villages or

cultivated areas, and of warehouses. Measures to protect water and soil are being implemented to stabilize the heavily eroded soils in the different project areas.

In addition, the population is supported in the application of good agricultural and agroecological practices and in the commercialization of products from irrigation. One example is the FC-supported fish farming in the water retained by the small dams that have been built. The target group is also trained in fish farming, processing, and preservation methods. Other training measures support good nutritional practices in households. Special attention is paid to the development of project measures that address the specific needs of women and young people, who are often disadvantaged. One example are vocational training measures, which will be integrated into one project as a pilot component in 2026 to improve young people's career prospects in Mali.

A key element of the projects is the involvement of the local population in project development. Beneficiaries must submit a request in advance for the infrastructure to be built. In addition, the population contributes financially and physically to the construction of the infrastructure, which promotes the ownership and sustainability of the approach.



Small dam. Source: Embassy of the Federal Republic of Germany in Bamako, Mali

What has been achieved?

Since 2014, around one million people from smallholder households have benefited from a total of around 50,000 hectares of developed irrigation land. The already completed small-scale irrigation projects have resulted in significant increases in yields, which in some cases have more than doubled. The nutritional status of young children has also improved significantly in the project areas.

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Farmer on irrigated cabbage field. Source: Embassy of the Federal Republic of Germany in Bamako, Mali